The COVID-19 pandemic: The 'black swan' for mental health care and a turning point for e-health

Tim R. Wind, PhD[1], Marleen Rijkeboer, PhD[2] Gerhard Andersson, PhD[3], & Heleen Riper, PhD [4][5]

[1]Foundation Centrum '45, Oegstgeest, The Netherlands | partner in Arq Psychotrauma Expert Group, Nienoord 5, 1112 XE Diemen, The Netherlands

[2]Department of Clinical Psychological Science, Faculty of Psychology and Neuroscience, Maastricht University, The Netherlands

[3]Department of Behavioural Science and Learning, Linköping University, Linköping, Sweden and Department of Clinical Neuroscience, Karolinska Institute, Stockholm, Sweden

[4]Department of Clinical, Neuro and Developmental Psychology, Vrije Universiteit, Amsterdam, The Netherlands

[5] Department of Research and Innovation, GGZ in Geest/Amsterdam University Medical Center, VU University Medical Center, Amsterdam, Netherlands

In February 2020, Duan and Zhu (2020) stressed the need for a solid Chinese evidence-based mental health care system in times of public health emergencies such as the outbreak of the Coronavirus disease-2019 (COVID-19). That would enable treatment of people who suffer from mental health problems in relation to the epidemic. The WHO has meanwhile labelled the Coronavirus a pandemic, and it is now hitting Europe, the USA, and Australia hard as well. In an attempt to reduce the risk of infections, many mental health care providers in afflicted

countries are currently closing their doors for patients who need ambulatory face-to-face therapy. They are simultaneously trying to replace some of these contacts with digital therapies. Most probably, European mental health care institutions have yet to experience the full impact of the coronavirus crisis. At the same time, the demand for mental health care among infected patients and their relatives is expected to rise (Blumenstyk, 2020). Levels of anxiety will increase, both through direct causes including fears of contamination, stress, grief, and depression triggered by exposure to the virus, and through influences from the consequences of the social and economic mayhem that is occurring on individual and societal levels. We expect that this "black swan" moment (Blumenstyk, 2020) - an unforeseen event that changes everything - will lead to a partly, though robust, shift in mental health care provision towards online prevention, treatment, and care in the near future. We also need to consider the role of psychological processes and fear that may cause further harm on top of the pandemic (Asmundson, & Taylor, 2020).

The obvious solution to continue mental health care within a pandemic is to provide mental health care at a 'warm' distance by video-conferencing psychotherapy and internet interventions. A systematic review showed that videoconferencing psychotherapy show promising results for anxiety and mood disorders (Berryhill et al., 2019), and the evidence-base for therapist-guided internet interventions is even stronger (Andersson, 2016;). Yet, despite two decades of evidence-based e-mental health services, numerous barriers have stalled the overall implementation in routine care thus far (Vis et al., 2018; Tuerk et al., 2019). One of the most important barriers highlighted, however, has been that e-mental health has not been integrated as a normal part of routine care practice due to the lack of acceptance by health professionals themselves (Topocoo et al., 2017). Myths on telehealth such as "the therapeutic alliance can only be established face-to-face" have dominated the field, in spite of research

showing the opposite (Berger, 2017). In that sense, learning curves in the adoption of new e-mental health technologies by both patients and psychologists have progressed far more slowly than initially expected, thus tallying with the estimate that it takes on average16 years for a health care innovation to be implemented (Rogers et al., 2017). There are however exceptions in the world but progress is still slow.

In the Netherlands and elsewhere, we are now witnessing a phenomenon whereby the outbreak of COVID-19 is hastening managers, ICT-staff, and clinicians to overcome all such barriers overnight, from a pragmatic standpoint seldom seen before. The virus seems a greater catalyst for the implementation of online therapy and e-health tools in routine practice than two decades of many brilliant, but failed, attempts in this domain (Mohr et al., 2018). After all, since predictions about COVID-19 are largely unclear as of yet, it is now time to create a longer-term solution to the problem of heterogeneous patient populations, such as those still active in the community and those that are house-bound or isolated in hospitals. Videoconferencing and internet interventions could therefore be very helpful in mental health care, as well as in physical care and can be easily upscaled to serve isolated regions and reach across borders.

Thus, the "black swan virus" has already enabled wide-scale acceptance of videoconferencing by health professionals and patients alike – creating a win-win situation for both. We should stress that e-mental health applications hold value far beyond the provision of videoconferencing psychotherapy in the current situation of crisis. Countries hit by the Corona virus may also consider adopting a wider public e-mental health approach, which would focus additionally on prevention and on reaching people at risk for mental health disorders. In this respect, not only guided but also fully self-guided interventions, such as self-help apps or online therapeutic modules, could also be applied in settings and countries with scarce mental health

resources (Christiani & Setiawan, 2018). We should also consider the need for treatment development (for the psychological problems caused by corona virus isolation), which is by far more rapid in the field of internet interventions than in traditional psychotherapy (Andersson et al., 2019).

It is likely that the response to this emergency will be more than a temporary increase in online work (Blumenstyk, 2020). Once mental health care institutions have developed the capabilities of serving their patients via videoconferencing and other digital technologies, there is little reason for them to give these up, in view of the many advantages (Blumenstyk, 2020; Tuerk et al., 2019).This black swan should be a call for action by encouraging providers to move more rapidly towards blended care models (van der Vaart et al., 2014; Kooistra et al 2019). Agility, flexibility, and resilience are essential skills for 21-st-century institutions, particularly when unforeseen disruptive viruses and devastating events driven by climate change are likely to be increasingly common (Blumenstyk, 2020). We urge practitioners to promptly start adopting e-mental health care applications, both as methods to continue their care to current patients in need and as interventions to cope with the imminent upsurge in mental health symptoms due to the coronavirus.

References

Andersson, G. (2016). Internet-delivered psychological treatments. Annu. Rev. Clin. Psychol, 12, 157-179.

Andersson, G., Titov, N., Dear, B. F., Rozental, A., & Carlbring, P. (2018). Internet-delivered psychological treatments: from innovation to implementation. *World Psychiatry, 18,* 20-28.

Asmundson, G. J. G., & Taylor, S. (2020). How health anxiety influences responses to viral outbreaks like COVID-19: What all decision-makers, health authorities, and health care professionals need to know. *J Anxiety Disord, 71,* 102211.

Berger, T. (2017). The therapeutic alliance in internet interventions: A narrative review and suggestions for future research. *Psychother Res, 27,* 511-524.

Berryhill, M.B., Culmer, N., Williams, N., Halli-Tierney, A., Betancourt, A., Roberts, H. & King, M. (2019). Videoconferencing psychotherapy and depression: A systematic review. *Telemedicine and e-Health, 25*, 435-446.

Blumenstyk, G. (2020). Why coronavirus looks like a 'black swan' moment for higher ed. *The Chronicle.* Published March 11, 2020: https://www.chronicle.com/article/Why-Coronavirus-Looks-Like-a/248219.

Christiani, Y. & Setiawan, A. (2018). Internet-based treatment of depression in Indonesia. *Lancet Psychiatry, 5*, 688-689.

Duan, L. & Zhu, G. (2020). Psychological interventions for people affected by the COVID-19 epidemic. *Lancet Psychiatry, S2215-0366(20)30073-0.*

Karyotaki, E., Ebert, D. D., Donkin, L., Riper, H., Twisk, J., Burger, S., … & Cuijpers, P. (2018). Do guided internet-based interventions result in clinically relevant changes for patients with depression? An individual participant data meta-analysis. *Clinical Psychology Review, 63,* 80-92.

Kooistra, L. C., Wiersma J. E., Ruwaard J., Neijenhuijs K., Lokkerbol J., van Oppen P., Smit F., & Riper, H. (2019). Cost and Effectiveness of Blended Versus Standard Cognitive Behavioral Therapy for Outpatients With Depression in Routine Specialized Mental Health Care: Pilot Randomized Controlled Trial. *Journal of Medical Internet Research, 10,* e14261

Mohr, D. C., Riper, H., & Schueller, S. M. (2018). A solution-focused research approach to achieve an implementable revolution in digital mental health. *JAMA Psychiatry*, *75*, 113-114.

Rogers, H., Madathil, K.C., Agnisarman, S., Narashima, S., Ashok, A., Nair, A., Welch, B.M. & McElligott, J.T. (2017). A systematic review of the implementation challenges of telemedicine systems in ambulances. *Telemedicine and e-Health, 23(9)*, 707-717.

Topooco, N., Riper, H., Araya, R., Berking, M., Brunn, M., Chevreul, K., Cieslak, R., Ebert, D. D., Etchmendy, E., Herrero, R., Kleiboer, A., Krieger, T., García-Palacios, A., Cerga-Pashoja, A., Smoktunowicz, E., Urech, A., Vis, C., Andersson, G., & On behalf of the E-COMPARED consortium. (2017). Attitudes towards digital treatment for depression: A European stakeholder survey. *Internet Interv, 8,* 1-9.

Tuerk, P.W., Keller, S.M. & Acierno, R. (2019). Treatment for anxiety and depression via clinical videoconferencing: Evidence base and barriers to expanded access in practice. *Focus, 16*, 363-369.

Vis, C., Mol, M., Kleiboer, A., Bührmann, L., Finch, T., Smit, J., & Riper, H. (2018). Improving implementation of eMental health for mood disorders in routine practice: Systematic review of barriers and facilitating factors. *JMIR Mental Health*, *5*, e20

van der Vaart, R., Witting, M., Riper, H., Kooistra, L., Bohlmeijer, E. T., & van Gemert-Pijnen, L. J. (2014). Blending online therapy into regular face-to-face therapy for depression: content, ratio and preconditions according to patients and therapists using a Delphi study. *BMC Psychiatry, 14,* 355.